

Notice of Allowability

Application No.

09/751,900

Examiner

JAGDISH PATEL

Applicant(s)

STARKMAN, HARTLEY C.

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/8/2006.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This communication is in response to amendment filed 5/8/2006.

Response to Amendment

2. Claims 1, 7 and 15 have been amended.

Response to Arguments

3. Claims 1-31 have been allowed based upon the Examiner's Amendment as follows.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Att. Daniel M. Fitzgerald (Reg. No. 38,880) on 12/18/06.

Amendment to the Claims

Please amend claims 1, 7 and 15 as follows:

1. (Currently amended) A method for managing a distressed loan portfolio using roll rates for a group of non-stationary asset-based loans utilizing a computer, the group of non-stationary asset-based loans included within the distressed loan portfolio, said method comprising the steps of:

(a) predicting a payment behavior for a borrower of a non-stationary asset-based loan included within a distressed loan portfolio utilizing a collections model wherein the payment behavior includes whether the borrower will submit a timely payment and a payment amount relative to a contractual delinquency for the associated loan, wherein the collections model is based on historical payment information of the borrower and a plurality of collection strategies for collecting payment from the borrower, and wherein the non-stationary asset based loans include at least one of automobile loans, vehicle loans, and credit card loans;

(b) initiating at least one of the plurality of collection strategies with respect to the borrower and the payment of the associated loan;

(c) analyzing the borrower's payment behavior after initiating the at least one collection strategy;

(d) comparing the borrower's payment behavior after initiating the at least one collection strategy to the predicted payment behavior of the borrower;

(e) updating the collections model based on the borrower's payment behavior comparison;

(f) calculating with a computer an amount generated and expenses incurred from

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repossessing a non-stationary asset used as collateral for the borrower's loan utilizing a re-marketing model, the re-marketing model further calculates a probability that an event will occur impacting payment of the borrower's loan;

(g) generating delinquency moving matrices that include the borrower's loan to facilitate predicting roll rates;

(h) predicting a roll rate into a next level of delinquency for the borrower and the associated loan using the updated collections model, the calculated amount generated and expenses incurred, and the calculated probability that an event will occur that is calculated by the re-marketing model;

(i) repeating steps (a)-(h) for each loan included within the group of non-stationary asset-based loans: and

(j) managing the loan portfolio by forecasting cash flow for the loan portfolio based on the predicted roll rate of each loan included within the group of non-stationary asset-based loans.

7. (currently amended) A system for managing a distressed loan portfolio using roll rates for a group of non-stationary asset-based loans, the group of non-stationary asset-based loans included within the distressed loan portfolio, said system comprising:

at least one computer;

a server configured with a roll rate determination model including a collections model and a re-marketing model, said server configured to:

(a) predict, by accessing the collections model, a payment behavior for a borrower of a non-stationary asset based loan included within the distressed loan portfolio

wherein the payment behavior includes whether the borrower will submit a timely payment and a payment amount relative to a contractual delinquency for the associated loan, wherein the collections model is based on historical payment information of the borrower and a plurality of collection strategies for collecting payment from the borrower, and wherein the non-stationary asset based loans include at least one of automobile loans, vehicle loans, and credit card loans;

(b) analyze the borrower's payment behavior after initiating at least one of the plurality of collection strategies;

(c) compare the borrower's payment behavior after initiating the at least one collection strategy to the predicted payment behavior of the borrower;

(d) update the collections model based on the borrower's payment behavior comparison;

(e) calculate, by accessing the re-marketing model, an amount generated and expenses incurred from repossessing a non-stationary asset used as collateral for the borrower's loan, the re-marketing model further calculates a probability that an event will occur impacting payment of the borrower's loan;

(f) generate delinquency moving matrices that include the borrower's loan to facilitate predicting roll rates;

(g) predict whether the borrower's loan will roll forward into a next classification of delinquency using the updated collections model, the calculated amount generated and expenses incurred, and the calculated probability that an event will occur that are calculated by the re-marketing model;

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(h) repeat steps (a)-(g) for each loan included within the loan portfolio; and

(j) manage the loan portfolio by forecasting cash flow for the loan portfolio based on the predicted roll rate of each loan included within the group of non-stationary asset-based loans; and

a network connecting said computer to said server to enable said computer to communicate with said server.

15. (currently amended) A computer for managing a distressed loan portfolio using roll rates for a group of non-stationary asset-based loans, the group of non-stationary asset-based loans included within the distressed loan portfolio, said computer comprising a processor and programmed to:

(a) predict, by accessing a collections model, a payment behavior for a borrower of a non-stationary asset-based loan included within the distressed loan portfolio wherein the payment behavior includes whether the borrower will submit a timely payment and a payment amount relative to a contractual delinquency for the

associated loan, wherein the collections model is based on historical payment information of the borrower and a plurality of collection strategies for collecting payment from the borrower, and wherein the non-stationary asset based loans include at least one of automobile loans, vehicle loans, and credit card loans;

(b) analyze the borrower's payment behavior after initiating at least one of the plurality of collection strategies;

(c) compare the borrower's payment behavior after initiating the at least one

- collection strategy to the predicted payment behavior of the borrower;
- (d) update the collections model based on the borrower's payment behavior comparison;
- (e) calculate, by accessing the re-marketing model, an amount generated and expenses incurred from repossessing a non-stationary asset used as collateral for the borrower's loan, the re-marketing model further calculates a probability that an event will occur impacting payment of the borrower's loan;
- (f) generate delinquency moving matrices that include the borrower's loan to facilitate predicting roll rates;
- (g) predict whether the borrower's loan will roll forward into a next classification of delinquency using the updated collections model, the calculated amount generated and expenses incurred, and the calculated probability that an event will occur that are calculated by the re-marketing model;
- (h) repeat steps (a)-(g) for each loan included within the loan portfolio; and
- (j) manage the loan portfolio by forecasting cash flow for the loan portfolio based on the predicted roll rate of each loan included within the group of non-stationary asset-based loans.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

The claimed inventions pertain to managing a distressed loan portfolio using roll rates for a group of non-stationary asset-based loans.

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Claims 1-31 are allowed because the prior art of record discussed below and deemed most relevant fails to teach or fairly suggest management of loans or mortgages using the concept of predicted "roll rate" of individual loans in a portfolio of loans as further explained below.

For clarification the term "roll rate" is to be interpreted in light of the specification. The specification in paragraph [0037] of the PG Publication recites:

Roll rate as used herein is calculated by a determination of the value of each loan, in aggregate, that has rolled forward from, for example, 30 days delinquent to 60 days delinquent that is, determining those accounts that did not pay. Alternatively, some accounts may roll back, that is, a 90 day delinquent loan may receive two payments in a month, thereby rolling back to 60 days late. Determination of roll back and roll forward help in aligning collectors and collection efforts by using model 10, to predict which buckets accounts will be in. Prediction of which buckets accounts will be located, allows allocation of collectors for each level of delinquency and allows focus of collection efforts as continued deterioration of the portfolio occurs.

6. The claimed invention recites forecasting cash flow for the loan portfolio by predicting a roll rate for each loan in the loan portfolio into a next level of delinquency for a borrower and the associated loan. The prediction of the roll rate of each loan is based upon the following parameters:

- (i) delinquency moving matrices,
- (ii) amount generated and expenses incurred from repossessing an asset used as a collateral for the loan,

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- (iii) updated collections model based upon the borrowers payment behavior and
- (v) calculated probabilities that an event will occur impacting payment of the loan.

The closest prior art if record is Freeman et al. (US 6,249,775) (Freeman). Freeman discloses process and apparatus to analyze and select loan portfolios for either continued or future investment by a financial institution. Each loan portfolio comprises a plurality of loan units and the system operates by separating the loan portfolios into a plurality of loan vintages, in a manner such that the loans included in each loan vintage have origination dates that are on average of the same age. The system of the invention produces an analysis of the past performance of loan portfolios, as well as an indication of the future performance thereof in two different formats. The early warning system (EWS) constituent of the invention is one of the systems and processes which predicts the percentage of the loans in a given loan vintage which are likely to enter a "bad" state within a predefined forward looking time window, for example, the next two years. Finally, the so-called matrix link component of the present invention is generally similar to the aforementioned early warning system in that it is a prediction tool. It differs from the early warning system in the respect that it is capable of forecasting the percentage of loans that are likely to be bad at a date certain within the aforementioned forward looking time window.

Freeman however, does not teach the determination of "roll rates" of individual loan in a loan portfolio and forecasting cash flow for the loan portfolio based on the predicted roll rate of each loan included within the group of non-stationary asset-based loans.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAGDISH PATEL whose telephone number is (571) 272-6748.

The examiner can normally be reached on ~~800AM-630PM Mon-Tue and Thu~~

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **KRAMER JAMES A** can be reached on **(571)272-6783**. The fax phone number for the organization where this application or proceeding is assigned is 517-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jagdish N. Patel

(Primary Examiner, AU 3693)

12/18/06